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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/510,691
Filing Date: October 08, 2004
Appellant(s): HALL, BRUCE S

David R. Schaffer
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/3/2010 appealing from the Office action mailed 3/3/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

1-17, 19-21, 23-35, 37-39, 41, 52-71.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN

REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

The only difference between the New Ground of Rejection and the Final rejection of 3/3/2010, is the removal of (applicant's disclosure page 8 third paragraph) as prior art.

NEW GROUND(S) OF REJECTION

Claims 1-2, 6-7, 12, 14-16, 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907).

Claims 3-5, 8-10, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212).

Claims 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Makami et al (4478895).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Makami et al (4478895).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212) as applied to claim 16 above and further in view of Makami et al (4478895).

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212) and Makami et al (4478895) as applied to claim 24 above and further in view Benedict et al (5681612).

Claims 14, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santos (5347775) in view of Diamond (6898907).

Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr (5811719), and Carson (5242207).

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr (5811719), and Carson (5242207) as applied to claim 27 above and further in view of White (6907811).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond (6898907).

Claims 31-35, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Diamond (6898907) as applied to claim 30 above and further in view of Madden Jr. (5811719).

Claims 38-39, 41, 52, 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Diamond (6898907) as applied to claim 30 above and further in view of Fyfe (6806212).

Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Madden Jr. (5811719), and Fyfe (6806212) as applied to claim 52 above and further in view of Fonseca (2003/0159390).

Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong (5749178).

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al (5242207) in view of Sato et al (4730023).

Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong (5749178).

Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al (5242207) in view of Sato et al (4730023) as applied to claim 57 above and further in view of Fyfe (6806212).

Claims 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al (5242207) in view of Sato et al (4730023) as applied to claim 57 above and further in view of Madden Jr (5811719).

Claims 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong and Fyfe (6806212).

Claims 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong in view of Makami et al (4478895).

Claims 57, 66, 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Diamond (6898907) and Carson (5242207).

Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Diamond (6898907) and Carson (5242207) as applied to claim 56 above and further in view of Fyfe (6806212).

Claims 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Diamond (6898907) and Carson (5242207) as applied to claim 57 above and further in view of Madden (5811719).

Claims 70-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Sato (4730023) and Fonseca.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6907811	White	06-2005
6898907	Diamond	05-2005
6806212	Fyfe	10-2004
6269597	Haas	08-2001
5811719	Madden Jr.	09-1998
5347775	Santos	09-1994
20030159390	Fonseca	08-2003
5749178	Garmong	05-1998
5681612	Benedict et al	10-1997
5242207	Carson et al	09-1993
4730023	Sato et al	03-1988
4478895	Makami et al	10-1984

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. PRODUCT BY PROCESS CLAIM:

" The subject matter present is regarded as a product by process claim in which a product is introduced by the method in which it is made. It is the general practice of this office to examine the final product described regardless of the method provided by the applicant."

The above office policy applies to the limitations of " cured", " sprayed" of claims 14, 27, 30-31, 38, and 52-53, 70.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 6-7, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907).

Diamond (...907, figure 14) shows a method of providing a blast resistance of a structure (40) comprising spraying a layer of elastomer material (920A or 920B only, not both layers 920B and 920A) to form a blast resistant panel of a predetermine thickness in the range of about 100 mil to about 250 mil (the range is disclosed by the reference's range of (.5-12) inch thick in paragraph 53 for the material divided by half as the thickness is to layer 920A or 920B only, not both layers), once cured, securing the panel to a wall of the structure (40, 44), the elastomer material being polyurethane (paragraph 51), the panel is flexible, the spraying said layer of elastomeric material comprising spraying (nozzle 38) the layer directly onto a molding surface, fastener elements (247, 250, 865, 1372) for securing the cured layer to a surface of a structure, the panel having a thickness of about 250mil (within the disclosed range of (0.5-12inch)/2), the blast resistant panel extending from at least two opposing edges of the wall of the structure with a first of the opposing edges being adjacent a top of an outer perimeter of the wall of the structure (the glass panel) and a second of the opposing edges being adjacent a bottom of the outer perimeter of the wall of the structure.

Diamond (907) further discloses that the panel (816) can be cut to fit various shapes and sizes of windows.

Diamond (907) does not show the thickness in the range of about 100 mil to less than 250 mil.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond (907)'s panel to show the thickness in the range of about 100 mil to less than 250 mil because it would have been an obvious matter of engineering design choice to modify the panel's thickness from about 250 mil to a little less than 250 mil since a thickness dimension little more/less than 250 mil would provide the same function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third paragraph (the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

3. Claims 14-15, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907).

Diamond (...907, figure 14) shows a blast resistant panel comprising a cured layer of elastomer material (920A or 920B only, not both layers 920B and 920A) having predetermined thickness in the range of about 100 mil to about 250 mil (the range is disclosed by the reference's range of (.5-12) inch thick in paragraph 53 for the material divided by half as the thickness is to layer 920A or 920B only, not both layers), fastener elements (247, 250, 865, 1372) for securing the cured layer to a surface of a structure, the blast resistant panel extending from at least two opposing edges of the wall of the structure with a first of the opposing edges

being adjacent a top of an outer perimeter of the wall of the structure (the glass panel) and a second of the opposing edges being adjacent a bottom of the outer perimeter of the wall of the structure, the panel is flexible, the elastomer material being polyurethane (paragraph 51), the panel is flexible.

Diamond (907) does not show the thickness in the range of about 100 mil to less than 250 mil, the thickness of about 180 mil.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond (..907)'s panel to show the thickness in the range of about 100 mil to less than 250 mil, the thickness of about 180 mil because it would have been an obvious matter of engineering design choice to modify the panel's thickness from about 250 mil to a little less than 250 mil since a thickness dimension little more/less than 250 mil would provide the same function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third paragraph(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Diamond (907) as modified shows all the claimed structural limitations, and is inherently able to function to withstand an explosive blast having a peak incident overpressure of about 17 psi or more and a reflected pressure of about 51 psi or more without breaking as set forth.

4. Claims 3, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212).

Diamond as modified shows all the claimed limitations except for the elastomeric material being a polyurea material.

Fyfe discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the elastomeric material being a polyurea material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

Diamond as modified shows all the claimed limitations. The claimed method steps of improving blast resistant to a structure would have been the obvious method steps of protecting a structure with Diamond's modified structure.

5. Claims 4-5, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212).

Diamond as modified shows all the claimed limitations except for the elastomeric material having a percent elongation at break in a range of about 100-800%, the range being of about 400-800%.

Fyfe further discloses preferred sprayed polyurethane for having a percent elongation at break in a range of about 600-700%, and the tensile strength of about 4000psi.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the elastomeric material being having a percent elongation at break in a range of about 100-800% and having a tensile strength greater than 2000psi, the range being of about 400-800% because it would allow for good curing time and no release of volatile organic solvents mix as taught by Fyfe.

Diamond as modified shows all the claimed limitations. The claimed method steps of improving blast resistant to a structure would have been the obvious method steps of protecting a structure with Diamond's modified structure.

6. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907 in view of Fyfe (6806212).

Diamond as modified shows all the claimed limitations except for the elastomeric material having a percent elongation at break in a range of about 100-800%, the range being of about 400-800%.

Fyfe further discloses preferred sprayed polyurethane for having a percent elongation at break in a range of about 600-700%, and the tensile strength of about 4000psi.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the elastomeric material being having a percent elongation at break in a range of about 100-800% and having a tensile strength greater than 2000psi, the range being of about 400-800% because it would allow for good curing time and no release of volatile organic solvents mix as taught by Fyfe.

Diamond as modified shows all the claimed limitations. The claimed method steps of improving blast resistant to a structure would have been the obvious method steps of protecting a structure with Diamond's modified structure.

7. Claims 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Makami et al (4478895).

Diamond as modified shows all the claimed limitations except for the step of spraying the layer of elastomeric material comprising spraying the material onto a fabric reinforcement layer, the step of spraying the material onto a reinforcement layer positioned on a molding surface.

Makami et al discloses the step of spraying layers of elastomers on a fabric reinforcement layer (1).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the step of spraying the layer of elastomeric material comprising spraying the material onto a fabric reinforcement layer, the step of spraying the material onto a reinforcement layer positioned on a molding surface because having a fabric layer within layers of elastomer would impart strength dimensional stability to the structure as taught by Makami et al (col 2 line 34).

Diamond as modified shows all the claimed limitations. The claimed method steps of improving blast resistant to a structure would have been the obvious method steps of protecting a structure with Diamond's modified structure.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212).

Diamond as modified shows all the claimed limitations except for the elastomeric material being a polyurea material.

Fyfe discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the elastomeric material being a

polyurea material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Makami et al (4478895).

Diamond as modified shows all the claimed limitations except for the panel further comprising a fabric reinforcing layer.

Makami et al discloses the using fabric(1) to reinforce layers of elastomers.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the panel further comprising a fabric reinforcing layer because having a fabric layer within layers of elastomer would impart strength dimensional stability to the structure as taught by Makami et al (col 2 line 34).

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212) as applied to claim 16 above and further in view of Makami et al (4478895).

Diamond as modified shows all the claimed limitations except for the panel further comprising a fabric reinforcing layer.

Makami et al discloses the using fabric(1) to reinforce layers of elastomers.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the panel further comprising a fabric reinforcing layer because having a fabric layer within layers of elastomer would impart strength dimensional stability to the structure as taught by Makami et al (col 2 line 34).

11. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (6898907) in view of Fyfe (6806212) and Makami et al as applied to claim 24 above and further in view of Benedict et al (5681612).

Diamond as modified shows all the claimed limitations except for the fabric reinforcing layer being of aramid fibers or polyester fibers.

Benedict et al discloses fabric reinforcing layer being of aramid fibers or polyester fibers.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Diamond's modified structure to show the fabric reinforcing layer being of aramid fibers or polyester fibers because these fabric are readily available and provides good strength for the composite structure as taught by Benedict et al.

12. Claims 14, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santos (5347775) in view of Diamond (6898907).

Santos shows a blast resistant panel comprising a panel (40) having a predetermined thickness, fastener elements (56, 56') for securing the panel to a wall of a structure (the wall) so that the panel extends from at least two opposing edges of the wall of the structure with a first of the opposing edges abutting a top of an outer perimeter of the wall of the structure (the window pane) and a second of the opposing edges abutting a bottom of the outer perimeter of the wall of the structure, a channel member (20) secured to the panel around at least a portion of the peripheral thereof.

Santos does not show the panel being made of elastomeric material having a thickness in the range of about 180mil to less than 250 mil, the material being polyurethane.

Diamond shows a panel being made of elastomeric material and a panel thickness of 250 mil, the material being polyurethane.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Santos' structure to show the panel being made of elastomeric material of about 250 mil, the material being polyurethane as taught by Diamond because the thickness and elastomeric material would enable the panel to withstand and protect a window structure against stormy weather, and having the thickness in the range of about 180 mil to less than 250 mil would have been an obvious matter of engineering design since a thickness dimension little more/less than 250 mil would provide the same function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third paragraph(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Santos as modified shows all the claimed structural limitations, and is inherently able to function to withstand an explosive blast having a peak incident overpressure of about 17 psi or more and a reflected pressure of about 51 psi or more without breaking as set forth.

13. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Madden Jr (5811719), and Carson (5242207).

Haas shows a system comprising a panel (13) constructed of a fiberglass loaded plastic, the panel having a steel channel (6) fastened around a peripheral thereof, a plurality of fasteners adapted to fasten the channel and the panel to a wall of a structure from a top of an outer perimeter of the wall (the parts 3 and 4) to a bottom of the outer perimeter of the wall and from a

left side of the outer perimeter of the wall to a right side of the outer perimeter of the wall with said blast-resistant panel, a pair of opposing sides depending from the opposite ends of a bottom portion to form a substantially U-shaped channel, a U-shaped steel channel along a top portion, a bottom portion, a first side portion of the periphery (figure 1), the panel being cured (inherently so as it is of plastic), the channel is fastened to an interior surface of the structure (inherently so as no structure is claimed and no relationship between the structure and the system is claimed with respect to position).

Haas does not show the plastic being a flexible blast resistant elastomeric material having a predetermined thickness in a range between about 100 mil and to less than 250 mil, the fiber being a fabric reinforcing layer.

Carson et al shows a panel having a thickness in the range of 100 mil to 250mil to protect the structure(17).

Madden Jr. discloses a protective shield having layers of fibrous material held together by flexible resins (col 5 lines 65-col 6 lines 2-3).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's structure to show the plastic being an elastomeric material, the fiber being a fabric reinforcing layer because having elastomeric material surrounding fiber layers to form a protective device would enable the device to withstand tremendous impact forces as taught by Madden Jr, and having the thickness of the panel in the range of 100-250 mil as taught by Carson et al would provide proper protection for the structure against vandalism, and one having ordinary skill in the art would have found it to be an obvious matter of engineering design choice to have a thickness dimension little more/less than 250 mil since it would provide the

same function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Haas as modified shows all the claimed structural limitations, and is able to function to withstand an explosive blast having a peak incident overpressure of about 17 psi or more and a reflected pressure of about 51 psi or more without breaking.

14. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Madden Jr (5811719), and Carson (5242207) as applied to claim 27 above and further in view of White (6907811).

Haas as modified shows all the claimed limitations except for a Z-shaped steel channel along a second side portion of the periphery opposite the first side portion and between the top and bottom side portion, the Z-shaped steel channel to be fastened to a first and second of the one or more panels.

White (figure 5) discloses a Z-shaped channel along a second side portion of the periphery opposite the first side portion and between the top and bottom side portion, the Z-shaped steel channel to be fastened to a first and second of the one or more panels.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show a Z-shaped steel channel along a second side portion of the periphery opposite the first side portion and between the top and bottom side portion, the Z-shaped steel channel to be fastened to a first and second of the one or more panels

because it would allow for the supporting of multiple panels to span and cover a large area as taught by White.

15. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond (6898907).

Haas shows a system comprising a panel (13) constructed of a fiberglass loaded plastic, the panel having a steel channel (6) fastened around a peripheral thereof, a plurality of fasteners adapted to fasten the channel and the panel to a wall of a structure, the panel sized to extend across and cover an area between opposing sides of the wall of the structure (the limitation does not limit the covering only to the area therebetween) with a first of the opposing sides abutting a top of an outer perimeter of the wall of the structure and a second of the opposing sides abutting a bottom of the outer perimeter of the wall of the structure, the channel is adapted to fasten to an interior surface of the structure (inherently capable of doing so).

Haas does not show the plastic being a flexible blast resistant elastomeric material, the thickness being in the range of about 100mil to less than 250mil.

Diamond shows a flexible blast resistant elastomer polyurethane panel to protect the structure against storm, the thickness being 250 mil (one of part 920A, 920B).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's structure to show the plastic being a flexible blast resistant elastomeric polyurethane material with a thickness of 250 mil because it would provide proper protection for the structure against stormy weather as taught by Diamond and one having ordinary skill in the art would have found it to be an obvious matter of engineering design choice to have a thickness dimension little more/less than 250 mil since it would provide the same

function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third (the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Haas as modified shows all the claimed limitation, and is able to function to resist an explosive blast having peak incident overpressure about 17 psi or more and a reflected pressure of about 51 psi or more, and the flexible blast resistant panel being to impede passage through the panel of wall fragments resulting from the explosive blast.

16. Claims 31-35, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond (6898907) as applied to claim 30 above, and further in view of Madden Jr (5811719).

Haas as modified shows all the claimed limitations except for the panel comprising a fabric reinforcing layer.

Madden Jr. discloses a protective shield having layers of fibrous material held together by flexible resins (col 6 lines 2-3), the fibrous material being of aramid fiber and the fiber being open grid pattern..

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the panel having a fabric reinforcing layer because having elastomeric material surrounding fiber layers to form a protective device would enable the device to withstand tremendous impact forces as taught by Madden Jr.

Per claims 32-34, Haas as modified shows the fabric layer being embedded in the elastomeric material, the fabric being of aramid fiber and the fiber being open grid pattern (Madden col 5 line 66).

Per claim 37, Haas as modified shows a panel that provides for the containment of shrapnel between the elastomeric panel and the surface of the wall.

17. Claim 38-39, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond as applied to claim 30 above and further in view of Fyfe (6806212).

Haas as modified shows all the claimed limitations except for the elastomeric material having a percent elongation at break in a range of about 100-800%, the range being of about 400-800%.

Fyfe further discloses preferred sprayed polyurethane for having a percent elongation at break in a range of about 600-700%.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the elastomeric material being having a percent elongation at break in a range of about 100-800%, the range being of about 400-800%. because it would allow for good curing time and no release of volatile organic solvents mix as taught by Fyfe.

Per claim 41, Haas as modified shows all the claimed limitations except for the elastomeric material being a polyurea material.

Fyfe further discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the elastomeric material being a polyurea material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

18. Claims 52, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Madden Jr (5811719), and Fyfe (6806212).

Haas shows a system comprising a blast resistant panel (13, inherently so as the panel would resistant projectile going through) constructed of a fiberglass loaded plastic, the panel having a U-shaped steel channel (6) fastened around a peripheral thereof, the periphery of the panel fastenable to a wall of a structure so as to cover the wall of a structure from a top of an outer perimeter of the wall to a bottom of the outer perimeter of the wall with the panel, a plurality of fasteners adapted to fasten the channel and the panel to a wall of a structure, a pair of opposing sides depending from the opposite ends of a bottom portion to form a substantially U-shaped channel, the panel being cured (inherently so as it is of plastic).

Haas does not show the plastic being an elastomeric material, the fiber being a fabric reinforcing layer, the panel having a thickness of about 100 to less than 250 mil, a percent elongation at break in a range of about 400-800%, the fabric layer being substantially planar and including warp and fill yarns defining an open grid pattern with openings of up to about 0.5 inch by 025 inch.

Madden Jr. discloses a protective shield having layers of fibrous material held together by flexible resins (col 6 lines 2-3), the fiber layer being open grid pattern.

Fyfe discloses preferred sprayed polyurethane for having a percent elongation at break in a range of about 600-700%.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's structure to show the plastic being an elastomeric material, the fiber being a fabric reinforcing layer, the panel having a thickness of about 100 to less than 250 mil, a percent elongation at break in a range of about 400-800% and a tensile strength of about 2000psi or greater, the fabric layer being substantially planar and including warp and fill yarns defining an open grid pattern with openings of up to about 0.5 inch by 025 inch because having elastomeric material surrounding fiber layers to form a protective device would enable the device to withstand tremendous impact forces as taught by Madden Jr., the panel having the percent elongation at break in a range of about 400-800% would allow for good curing time and no release of volatile organic solvents mix as taught by Fyfe, having the fiber defining an open grid pattern with opening of up to about 0.5 inch by 0.25 inch would allow for easy adhesion and bonding of the elastomer to the fabric, and the panel having a thickness in the range of about 100 to 250mil would provide for good protective strength to the cover, and one having ordinary skill in the art would have found it to be an obvious matter of engineering design choice to have a thickness dimension little more/less than 250 mil since it would provide the same function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

19. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Madden Jr (5811719), and Fyfe (6806212) as applied to claim 52 above, and further in view of Fonseca (2003/0159390).

Haas as modified shows all the claimed limitations except for the fastener elements passing through the steel channel system and the periphery of the cured, blast resistant panel.

Fonseca (figure 2c) discloses fasteners (16) passing through both a channel system (22c) and the periphery of a panel (12) to securely mount the panel and the channel system fixedly in place.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the fastener elements passing through the steel channel system and the periphery of the cured, blast resistant panel because it would enable the secure fastened in place of the panel with the channel reinforcing the edge of the panel as taught by Fonseca.

20. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Madden Jr (5811719), and Fyfe (6806212).

Haas as modified shows all the claimed limitations except for the elastomeric material being a polyurea material.

Fyfe further discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the elastomeric material being a polyurea

material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

21. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong (5749178).

Garmong shows a blast resistance panel (1, figure 4) formed of an elastomeric material (rubber), the panel being secured to an interior surface of an exterior wall in a room of a structure so that the blast resistant panel extends from at least two opposing edges of the exterior wall of the structure with a first of the opposing edges abutting a top of an outer perimeter of the wall of the structure and a second of the opposing edges abutting a bottom of the outer perimeter of the wall of the structure, the blast resistant panel (a panel made of rubber is inherently blast resistant) being adapted to prevent shrapnel from entering the room after the wall is subjected to an explosion (when there is an explosion), the explosion impacting the exterior wall first, and then impacting the blast resistant panel (assuming the explosion comes from outside).

Garmong does not show the panel being formed by first sprayed, and then cured, the panel having a thickness in the range of about 100mil to less than 250mil.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Garmong's structure to show the panel being formed by first sprayed and then cured since it is well known in the art to form a panel either by spraying or molding and once having ordinary skill in the art would have found it obvious to utilize either method for forming a rubber panel, and having a thickness in the range of about 100mil to less than 250mil, and the panel having a thickness in the range of about 100 to 250mil would have been obvious to one having ordinary skill as long as the dimension allows the panel to prevent galvanic

corrosion from occurring, and one having ordinary skill in the art would also have found it to be an obvious matter of engineering design choice to have a thickness dimension little more/less than 250 mil as long as it provides the same function of protecting a the inner structure from corrosion, and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third (the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Garmong as modified shows all the claimed limitations. The claimed method steps would have been the obvious method steps of forming blast resistance of a structure with Garmong's modified structures.

22. Claims 57, 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al (5242207) in view of Sato et al (4730023).

Carson et al (figure 6) shows a system comprising a flexible, blast resistant panel (20) of an acrylic material having a predetermined thickness in the range of about 100-250mil (col 3 line 54), a channel (26, 29) attached around a periphery of the panel, a plurality of fasteners (43) to fasten the channel to a wall of a structure (the wall of a vehicle), the panel sized to extend across and cover an area between opposing sides of the wall of the structure with a first of the opposing sides abutting a top of an outer perimeter of the wall of said structure and a second of the opposing sides abutting a bottom of the outer perimeter of the wall of the structure, the panel being adapted to prevent shrapnel from entering the room after the wall is subjected to an explosion (inherently capable of functioning as claimed), the panel having a thickness of about 180 mil.

Carson et al does not show the panel being made of acrylic elastomer material.

Sato discloses the use of acrylic elastomers for forming transparent panel being well known in the art (col 2 lines 11-15).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Carson et al's structure to show the acrylic panel being made of acrylic elastomer because it enhances the weathering ability of the panel as taught by Sato et al.

Carson as modified further shows the system being adapted to prevent shrapnel from entering the room after the wall is subjected to an explosion having a peak incident overpressure of about 17psi or more and a reflected pressure of about 51 psi or more (it is unclear what pressure the panel is subjected to yet).

23. Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al (5242207) in view of Sato et al (4730023).

Carson et al as modified shows all the claimed limitations except for the panel having a thickness of about 180 mil.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Garmong's modified structure to show the panel being formed a thickness of about 180mil since one having ordinary skill in the art would also have found it to be an obvious matter of engineering design choice to have a thickness of about 180mil as long as it provides the proper strength and protection for the window, and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third (the thickness can range from 100-250 mil, or even thicker

than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

24. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong.

Garmong as modified shows all the claimed limitations except for the panel having a thickness of about 180 mil.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Garmong's modified structure to show the panel being formed a thickness of about 180mil since one having ordinary skill in the art would also have found it to be an obvious matter of engineering design choice to have a thickness of about 180mil as long as it provides same function of protecting a the inner structure from corrosion, and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Garmong as modified shows all the claimed limitations. The claimed method steps would have been the obvious method steps of forming blast resistance of a structure with Garmong's modified structures.

25. Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al (5242207) in view of Sato et al (4730023) as applied to claim 57 above and further in view of Fyfe.

Carson et al as modified shows all the claimed limitations except for the elastomeric material being polyurea.

Fyfe further discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Carson et al's modified structure to show the elastomeric material being a polyurea material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

26. Claims 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al in view of Sato et al as applied to claim 57 above and further in view of Madden Jr (5811719).

Carson et al as modified shows all the claimed limitations except for the panel comprising a fabric reinforcing layer, the layer is constructed of at least one of aramid fibers and polyester fibers.

Madden Jr. discloses a protective shield having layers of fibrous material held together by flexible resins (col 6 lines 2-3), the fibrous material being of aramid fiber.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Carson et al's modified structure to show the panel having a fabric reinforcing layer because having elastomeric material surrounding fiber layers to form a protective device would enable the device to withstand tremendous impact forces as taught by Madden Jr.

27. Claims 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong in view of Fyfe (6806212).

Garmong as modified shows all the claimed limitations except for the material being polyurea.

Fyfe further discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Garmong's modified structure to show the elastomeric material being a polyurea material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

Per claim 60, Garmong as modified by Fyfe further shows the material having a percent elongation at break in a range of about 100-800%.

Garmong as modified shows all the claimed structural limitations. The claimed method steps would have been the obvious method steps of providing protection to the wall with Garmong's modified structures.

28. Claims 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garmong in of Makami et al (4478895).

Garmong as modified shows all the claimed limitations except for the panel comprising a fabric reinforcing layer, spraying the layer of elastomeric material comprising spraying the layer directly onto a molding surface.

Makami et al discloses the step of spraying layers of elastomers on a fabric reinforcement layer (1).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Garmong's modified structure to show the step of spraying the layer of elastomeric material comprising spraying the material onto a fabric reinforcement layer, the step of spraying the material onto a reinforcement layer positioned on a molding surface because

having a fabric layer within layers of elastomer would impart strength dimensional stability to the structure as taught by Makami et al (col 2 line 34).

29. Claims 57, 66, 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond (6898907), and Carson et al (5242207).

Haas shows a system comprising a blast resistant panel (13, inherently so as the panel would resistant projectile going through) constructed of a fiberglass loaded plastic, the panel having a U-shaped steel channel (6) fastened around a peripheral thereof, the periphery of the panel fastenable to a wall of a structure with a plurality of fasteners, so as to cover the wall of a structure from a top of an outer perimeter of the wall of the structure and a second of the opposing sides abutting a bottom of the outer perimeter of the wall of the structure.

Haas does not show the plastic being an elastomeric material, the panel having a thickness in the range of about 100 mil to about 250 mil.

Diamond discloses a layer of elastomeric material forming a protective layer for a wall.

Carson et al discloses a protective panel (20) having a thickness of 100-250mil.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's structure to show the plastic being an elastomeric material as taught by Diamond, the panel having a thickness in the range of about 100 mil to about 250 mil as taught by Carson et al since providing the desired thickness and material would enable the formation of a strong protective structure for the wall, and one having ordinary skill in the art would have found it to be an obvious matter of engineering design choice to have a thickness dimension little more/less than 250 mil since it would provide the same function of protecting a wall against external forces and the fact that such a change in dimension would have been an

obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third paragraph(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used).

Haas as modified shows all the claimed limitations, and the able to be adapted to prevent shrapnel from entering the room after the wall is subjected to an explosion having a peak incident overpressure of about 17 psi or more and a reflected pressure of about 51 psi or more (also, it is unclear how the explosion effects the panel as it is not set forth).

30. Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond (6898907), and Carson et al (5242207) as applied to claim 56 above and further in view of Fyfe (6806212).

Haas as modified shows all the claimed limitations except for the material being polyurea.

Fyfe further discloses polyurea for forming a coating for reinforcing structure (col 3 lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the elastomeric material being a polyurea material because polyurea would provide a good coating for reinforcing structures as taught by Fyfe.

31. Claims 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Diamond (6898907), and Carson et al (5242207) as applied to claim 57 above and further in view of Madden Jr (5811719).

Haas as modified shows all the claimed limitations except for the panel comprising a fabric reinforcing layer, the layer is constructed of at least one of aramid fibers and polyester fibers.

Madden Jr. discloses a protective shield having layers of fibrous material held together by flexible resins (col 6 lines 2-3), the fibrous material being of aramid fiber.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's modified structure to show the panel having a fabric reinforcing layer because having elastomeric material surrounding fiber layers to form a protective device would enable the device to withstand tremendous impact forces as taught by Madden Jr.

32. Claims 70-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (6269597) in view of Sato(4730023) and Fonseca.

Haas shows a system comprising a blast resistant panel (13, inherently so as the panel would resistant projectile going through) constructed of a fiberglass loaded plastic, the panel having a U-shaped steel channel (6) fastened around a peripheral thereof, the periphery of the panel fastenable to a wall of a structure so as to cover the wall of a structure from a top of an outer perimeter of the wall to a bottom of the outer perimeter of the wall with the panel, a plurality of fasteners to fasten the channel and the panel to a wall of a structure, the flexible blast resistant panel sized to extend across and cover an area between opposing sides of the wall of the structure with a first of the opposing sides abutting a top of an outer perimeter of the wall of the structure, a second of the opposing sides abutting a bottom of the outer perimeter of the wall of the structure, a third of the opposing sides abutting a left side of the outer perimeter of the wall of

the structure, and a fourth of the opposing sides abutting a right side of the outer perimeter of the wall of the structure, the panel being cured (inherently so as it is of plastic).

Haas does not show the plastic being an elastomeric material, the panel having a thickness of about 100 to less than 250 mil, the fastener elements passing through the steel channel system and the periphery of the cured, blast resistant panel.

Fonseca (figure 2c) discloses fasteners (16) passing through both a channel system (22c) and the periphery of a panel (12) to securely mount the panel and the channel system fixedly in place.

Sato discloses the use of acrylic elastomers for forming transparent panel being well known in the art (col 2 lines 11-15).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Haas's structure to show the plastic being an elastomeric material since it enhances the weathering ability of the panel as taught by Sato et al, and the panel having a thickness in the range of about 100 to 250mil would provide for good protective strength to the cover, and one having ordinary skill in the art would have found it to be an obvious matter of engineering design choice to have a thickness dimension little more/less than 250 mil since it would provide the same function of protecting a wall against external forces and the fact that such a change in dimension would have been an obvious matter of engineering design choice is further evidenced by applicant's disclosure on page 8 third(the thickness can range from 100-250 mil, or even thicker than 250 mil of about 100 to about 250 mil. Even more....thicker than 250 mil may also be used), and a person having ordinary skill in the art would have it obvious to modify Hass' structure to show the fastener elements passing through the steel channel system

and the periphery of the cured, blast resistant panel since it would enable the secure fastened in place of the panel with the channel reinforcing the edge of the panel as taught by Fonseca.

Per claim 71, Haas as modified shows all the claimed limitations and able to function to resist an explosive blast having a peak incident overpressure of about 17 psi or more and a reflected pressure of about 51 psi or more (it is unclear also how the pressure is acting on the panel).

(10) Response to Argument

With respect to Diamond and the teaching of layer 920A, and 920B, examiner respectfully points out that the office action of 3/3/2010 clearly states on page 3 that the reference " does not show the thickness in the range of about 100 mil to less than 250 mil". Rather, the reference Diamond as modified shows the claimed range of about 100 mil to less than 250 mil. Diamond's panel layer would provide essentially the same function of protecting a wall against external forces, be it 250 mil or a little less than 250 mil. The claimed range appears to be a matter of engineering design as also evidenced by applicant's disclosure on page 8 third paragraph. See also In re Geisler, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed cir. 1997).

Also, Diamond shows the limitation of " securing said blast resistant panel to a wall of the structure so that the blast resistant panel extends from at least two opposing edges of the wall of the structure with a first of the opposing edges being adjacent a top of an outer perimeter of the wall of the structure and a second of the opposing edges being adjacent a bottom of the outer perimeter of the wall of the structure" as shown by the figures 5, 6, 11 and 16. The reference is broadly reasonably interpreted to read on the limitations.

With respect to "blast resistant", examiner respectfully points out that the reference Diamond as modified shows the claimed structural limitations, with the panel functioning as a protective barrier. In order to arrive at an object beyond the panel, a projectile must first punch through the panel, with the panel providing a resisting force against the projectile. A large amount of force is required. Diamond's panel is thus a " blast resistant panel" as claimed. Applicant's statement to the "blast resistant panel of the present invention is not compressible and is designed to flex when subjected to a blast" is not claimed. The claim, however, sets forth that the material being elastomeric.

With respect to appellant's statement that Diamond as modified would have the panel being thin, examiner respectfully disagrees. As set forth above, the dimension of one panel layer being less than about 250 mil or 250 mil, would provide the same function of protecting the window against breakage. The reference certainly does not teach away from proposed modification. See also In re Geisler, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed cir. 1997).

With respect to claim 17, examiner respectfully states that the reference as modified shows all the claimed structural limitations including the polymer. The modified reference thus also can function as claimed.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to appellant's statement that modifying Diamond's structure to show the claimed dimension would render the reference unsatisfactory for its intended purpose, examiner disagrees. Diamond already discloses the layer 920A or 920B being 250mil. Modifying the dimension to be a little less than 250mil does not make the structure unsatisfactory for its intended purpose, rather the reference would function the same to provide to protect a building structure.

With respect to appellant's statement to " deconstructing the panel to have the layers 920A and 920B), examiner would like to point out that the claims use comprising language. The individual layer as modified also meets the claimed limitations as set forth above. Examiner simply modifies an existing layer, not deconstructing the panel as stated.

With respect to claims 14, 17 rejected by Santos in view of Diamond, the reference Santos shows a cover 40. As modified, the reference would have an elastomeric, polyurethane panel with the thickness being in the range of 180 mil to less than 250mil, as claimed. The modified reference also is able to function as intended to protect the window against hurricane.

In response to appellant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d

1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the motivation is found in the references themselves. Santos discloses the need to protect a window during hurricane, and Diamond discloses the use of elastomeric material to provide good protection for window. Santos as modified by Diamond thus would better be able to withstand and protect a window structure against stormy weather. With respect to 180 mil to less than 250mil, the dimension would have been an obvious matter of engineering design choice as the thickness would provide the same function of protecting the window against the element; furthermore, applicant page 8 shows a change in dimension would have been an obvious matter of engineering design choice.

Santos (figure 2) shows the "blast-resistant panel…abutting a bottom of the outer perimeter of the wall of said structure " as claimed. The modified reference to Santos shows all the claimed structural limitations, and able to function as claimed to " withstand an explosive blast having a peak incident overpressure of about 17psi ...of about 51psi or more without breaking".

Per claims 27-28, 30, 52 to Haas in view of Madden Jr. and Carson, examiner respectfully points out that the combination still results in the invention able to function as claimed. Haas is to the protection of the structure against vandalism. Madden Jr. is to a shield for protection and Carson is to a panel to protect a structure also. The combination results in Haas's system able to prevent vandalism as the panel is able to absorb impact and scratches. Figure 4 shows the panel (13) spaced from the glass panel 4. Having the panel being flexible certainly does not result in the glass broken from impact forces. Rather, the combination results in the protection system being durable, light weight, strong and able to provide good protection

as intended. Also, Diamond shows a panel made up of elastomeric material. An elastomeric panel by nature is flexible, although the degrees of flexibility vary. Haas as modified, shows an elastomeric panel that is flexible.

Haas as modified shows all the claimed structural limitations, and able to function as claimed to " withstand an explosive blast having a peak incident overpressure of about 17psi ...of about 51psi or more without breaking".

In response to appellant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the motivation is found in the references themselves. Haas discloses the need to protect a window. Diamond discloses the use of elastomeric material to provide good protection for window. Madden discloses the use of a flexible curtain to provide a shield against projectiles. Haas as modified by Diamond and Madden thus would better be able to withstand and protect a window structure against projectiles.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the

time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Per claim 56 rejected by Garmong, the reference shows a panel (1) made of an elastomeric material. The reference as modified shows all the claimed structural limitations. The reference as modified also is able to function as intended to prevent galvanic corrosion from occurring. The claimed method steps would have been the obvious method steps of forming a blast resistance structure with Garmong's modified structures.

Per claim 57 to Carson in view of Sato, Carson (figure 6) shows a panel (20) with a thickness in the range of about 100 mill to less than 250mil (col 3 line 54). The reference also shows a channel attached around a periphery of the panel with fasteners to fasten the channel to a wall of a structure. The panel also is able to function as a blast resistant panel. Carson as modified by Sato shows all the claimed structural limitations, and able being adapted to prevent shrapnel from entering the room after the wall is subjected to an explosion having a peak incident overpressure of about 17 psi or more and a reflected pressure of about 51 psi or more as set forth. Carson, however, does not show the panel being made of acrylic elastomer material. Sato discloses the use of acrylic elastomer material. Combing Carson with Sato, thus shows the claimed elastomeric material.

In response to appellant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the motivation is found in the references themselves. Carson discloses the need to protect a window with a flexible panel. Sato discloses a flexible and durable material. Carson as modified by Sato would arrive an enhanced protecting panel. The combination is thus encouraged.

Per claim 57 rejected by Haas in view of Diamond, and Carson. Haas shows a window protecting panel (13). Diamond discloses an elastomeric flexible material for protecting a window. Carson discloses a flexible panel with thickness of 100 mil to less than 250 mil for protecting a window. Haas as modified by Diamond and Carson, shows an elastomeric flexible panel that is 100 mil to less than 250 mil in thickness. Haas as modified, thus shows all the claimed structural limitations.

Also, Haas as modified still results in the invention able to function as claimed. Haas is to the protection of the structure against vandalism. The combination results in Haas's system able to prevent vandalism as the panel is able to absorb impact and scratches. The combination results in the protection system being durable, light weight, strong and able to provide good protection as intended.

Haas as modified shows all the claimed structural limitations, and able to function as claimed to " withstand an explosive blast having a peak incident overpressure of about 17psi ...of about 51psi or more without breaking".

Per claim 70, Haas as modified by Sato and Fonseca shows all the claimed structural limitations. Fonseca discloses the use of fasteners passing through both a channel system and the periphery of a panel to mount the panel and the system fixedly in place. Haas discloses attaching the panel to a wall structure to protect the window. Sato discloses the use of acrylic elastomers forming transparent panel being well known in the art. The combination of the references, results in an improved window protection system. The combination is thus encouraged.

Per claim 71, since the arguments are already addressed above, they are thus not repeated. The claim is reasonably broadly rejected as set forth above.

The arguments are thus not persuasive.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/Phi D. A/

Phi Dieu Tran A

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

/Katherine Matecki/

Director, Technology Center 3600

conferees:

David Dunn /DAVID DUNN/

Supervisory Patent Examiner, Art Unit 3636

Marc Jimenez /MJ/

TQAS TC 3600